STAFF SELECTION COMMISSION
Multi Tasking (Non-Technical) Staff

SOLVED PAPER

(2016: Shift-1)

Time Allotted- 150 Minutes   **Max marks-** 150

Important Instructions:-
⇨ This paper contains 150 questions which are divided into 4 sections. Two sections contains 50 questions each and the other two sections contains 25 questions each.
   ✓ General English
   ✓ General Intelligence & Reasoning
   ✓ Numerical Aptitude
   ✓ General Awareness
⇨ There will be 1 mark for each correct answer and also there will be a negative marking of 0.25 for each wrong answer.
⇨ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

General English

Directions: Some part of the sentences may have errors and some are correct. Find out which part of the sentence has an error and blacken the circle corresponding to the appropriate correct option. If a sentences is free from error, blacken the circle corresponding to **"No Error"** option in the answer Sheet.

1. This sponge is not able to absorbing water.
   1. This sponge is   **3.** not able to
   2. no error   **4.** absorbing water.

2. I am thinking I will go to the market later this afternoon.
   1. I am thinking   **3.** later his afternoon
   2. No error   **4.** I will go to the market

3. I am too much pleased to know that you have topped the list.
   1. to know that   **3.** no error
   2. you have topped the list **4.** I am too much pleased

4. Have you been doing what has been asks of you?
   1. Have you   **3.** what has been asks of you?
   2. been doing   **4.** No error

5. We rejoiced at his being promoted.
   1. being promoted   **3.** we rejoiced
   2. No error   **4.** at his

6. Kindly submit your documents to the clerk.
   1. to the clerk   **3.** your documents
   2. No error   **4.** Kindly submit

7. It is a most beautiful painting in the gallery.
   1. It is a most   **3.** beautiful painting
   2. No error   **4.** in the gallery.

8. Love for ours environment is enough to protect nature.
   1. no error   **3.** is enough to protect
   2. ours environment   **4.** love for nature

9. He is not what you would call an honest man, doesn't he?
   1. he is not what   **3.** doesn't he?
   2. you would call an honest man **4.** no error

10. He has not been attending English classes for one week.
   1. He has not been attending **3.** For one week
   2. English classes   **4.** No error

Directions: Sentences given with blank to be filled in with appropriate word(s). Four alternatives are suggested for each question. Choose the most appropriate alternative out of the four and indicate it by blackening the corresponding circle in the Answer Sheet.

11. Since she is a teacher of language, one would not expect her to be guilty of a _____.
   1. solecism   **2.** bornbast   **3.** schism   **4.** stanchion

12. Anna is not popular. She has _____ friends.
   1. a little   **2.** a few   **3.** few   **4.** little

13. Sally parked and got _____ the car quickly.
   1. out of   **2.** on   **3.** in   **4.** over

14. _____ she can't drive, Anita has bought a car.
   1. Since   **3.** Whether or not
   2. Even though   **4.** Even if

15. You will have to face some practical problems when you start _____ this plan.
   1. prosecuting   **3.** prescribing
   2. proscribing   **4.** executing

16. They were worried about a new cult which _____ many followers.
   1. must be gaining   **3.** was gaining
   2. were gaining   **4.** is gaining

17. The actor died when his car turned _____.
   1. turtle   **2.** tortoise   **3.** across   **4.** tiger

18. A man is known _____ the company he keeps.
   1. of   **2.** by   **3.** for   **4.** in

19. He must _____ the loans.
   1. repeal   **2.** repay   **3.** repeat   **4.** receipt

20. The convict was _____ on a Monday.
   1. hanging   **2.** hanged   **3.** hang   **4.** hung

Directions: Out of the four alternatives, choose the one which best expresses the meaning opposite to the given word.

21. Authentic
   1. fake   **2.** honest   **3.** frank   **4.** futile

22. Methodical
   1. orderly   **2.** flurry   **3.** random   **4.** crazy

23. Polite
   1. rude   **2.** rough   **3.** tough   **4.** rash

Directions: Out of the four alternatives, choose the one which can most appropriately substitute the given word(s) or sentence.

24. In a primitive or uncivilized state.
    1. rural   2. savage   3. village   4. olden

25. Happening every year.
    1. annually   2. routine   3. timely   4. season

26. One who believes in God.
    1. pilgrim   3. theist
    2. believer   4. worshipper

27. All in a mess.
    1. disturbing   3. negligence
    2. disarranged   4. distracting

28. A number of people listening to a correct or lecture.
    1. group   2. audience   3. tribe   4. spectator

Directions: A sentence of a part of the sentence is underlined. Below are given alternatives to the underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is needed choose "No Improvement".

29. How long I shall stay is doubtful.
    1. I can stay   3. I want to stay
    2. I will say   4. No improvement

30. Even at the peak of her success, Kalpana Chawla did not forget her home or her duty towards other human, this is evident from the fact that she distributed education of girls in India.
    1. she contribute to education of girls.
    2. she contributed girls for education.
    3. No improvement.
    4. she contributed to the education of girls.

31. Every person was not fitted for everything.
    1. is not fit at   3. was not fix at
    2. No improvement   4. is not fit for

32. The doctor scribbed his prescription which I could not make out.
    1. make over   3. make for
    2. make up   4. No improvement

33. Neither parties deserves our help.
    1. No improvement   3. party deserves
    2. parties deserved   4. parties deserve

Directions: Out of the four alternatives, choose the one which best expresses the meaning of the given word.

34. Stationery
    1. Writing accessories   3. Moving
    2. Computer accessories   4. Fixed

35. Abhorrent
    1. Irregularity   3. Admirable
    2. Repugnant   4. Uncommon

36. Innocent
    1. Guilt   2. Bias   3. Offence   4. Guiltless

Directions: Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

37. 1. municiple   2. muneciple   3. munecipal   4. municipal
38. 1. journal   2. jornal   3. jornale   4. jurnale
39. 1. license   2. liscense   3. lisense   4. licanse
40. 1. harrass   2. harass   3. harras   4. haraas
41. 1. saperate   2. separete   3. separate   4. seperate
42. 1. exhilarate   2. exhelerate   3. exhilerate   4. exelerate

43. The presentation by the group at the meeting passes muster.
    1. achieves to impress.
    2. meets required standards.
    3. does not meet the required standards.
    4. fails to impress.

44. All and sundry were asked to leave the village immediately.
    1. some people   3. all the adults and elderly
    2. all the people   4. all the adults

45. Joe can be a loose canon sometimes.
    1. one who acts without thinking.
    2. one who speaks without thinking.
    3. one who acts crazy.
    4. one who is unpredictable.

Read the following passage carefully and choose the most appropriate answer to each question out of the four alternatives.

At times there was something inhuman about Mr. Rogers, the Headmaster his formidable chin fitted out in the most formidable way, and he seemed to be always frowning at the world in General At the assembly he was like an inspecting officer in the army; he surveyed the gathered innocents with his crinkled eyes, and then began his list of morning rebukes. Any hapless offender, for the most venial offence, would be commanded to appear before his presence in front of the gathered ranks, and would then be subjected to a tirade of abuse that would leave him trembling or even in tears. Mr. Rogers was ruthless and cruel in public, "A dehydrated old sadist". was how Mr. Jones, the chemistry master decribed him.

The extraordinary thing was that in private he could he magnanimous and gentle. Any boy who was really in trouble would receive a sympathetic hearing, and went out feeling that the burden had been lightened.

46. What best describes Mr. Rogers at the school assembly?
    1. ruthless and cruel   3. a formidable teacher
    2. a sensitive army officer   4. a genial person

47. The staff considered Mr. Rogers to be _____.
    1. an intimidating person
    2. a person to be idolized
    3. a person without any scruples
    4. a gentle and understanding person

48. "In a most intimidating way" means.
    1. in a very fowl way
    2. in a very helpless way
    3. in an extremely intimate manner
    4. in an extremely frightening manner

49. Another word for 'imagnanimous' is :
    1. generous   3. magnificient
    2. high handed   4. arrogant

50. What happened to boys who visited him in private?
    1. They came out trembling and in tears.
    2. They looked even more worried than before.
    3. They echoed the sentiments of the staff members.
    4. They seemed relieved of their troubles.

General Intelligence & Reasoning

51. From the given alternative words, select the word which cannot be formed using the letters of the given word.
    VENTURE
    1. RENT   2. TURN   3. TRU   4. RATE

52. If '+' means '×' '−' means '÷', '×' means '−' and '÷' means '+' then the value of the given equation is:
    $9 + 8 ÷ 8 − 4 × 6 = ?$
    1. 11   2. 65   3. 68   4. 36

Directions: A series is given with one term missing. Out of the four alternatives, choose the alternative that will complete the series.

53. ACE, GIK, ?, SUW, YAC
    1. MOQ   2. MPQ   3. MOP   4. MNP

54. 2, 5, 10, 17, 26, ?
    1. 37   2. 35   3. 38   4. 33

55. Find the missing number from the given responses.

4	8	2
3	2	2
5	8	?
60	128	68

  1. 13   **2.** 17   **3.** 15   **4.** 19

56. A man facing south turns to his left and walk 10 m, then he turns to his right and walk 15 m, again he turns to his left and walk 5 m and then he turns to his left and walk 15 m. In which direction he is facing now?

  1. South   **2.** West   **3.** North   **4.** East

57. Find the number of triangles in the adjoining figure.
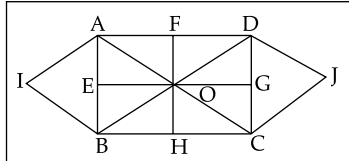
  1. 16   **2.** 20   **3.** 18   **4.** 14

Directions: Select the related word / letters / number from the given alternatives.

58. 8 : 512 :: 9 : ?

  1. 728   **2.** 729   **3.** 781   **4.** 792

59. ADIP : DGLS :: BEJQ : ?

  1. FINU   **2.** EJQU   **3.** EHMT   **4.** CGLS

60. Author : Pen :: Doctor : _____

  1. Hospital   **3.** Stethoscope

  2. Dispensary   **4.** Ward

61. POLITE : ETILOP ::_____

  1. DRAOB : BROAD   **3.** CHART : TRACH

  2. SINGLE : ELGNIS   **4.** WOMEN : WOMAN

62. One or two statements are given followed by two Conclusions/ Assumptions, I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions / assumptions can definitely be drawn from the given statement. Indicate your answer.

**Statement:** No man is a donkey. Rahul is a man.

Conclusions:

I. Rahul is not a donkey.

II. All man are not Rahul.

  1. Only Conclusion I follow.

  2. Neither Conclusion I nor Conclusion II follow.

  3. Only Conclusion II follow.

  4. Either Conclusion I or Conclusion II follow.

63. Some equations are solved on the basis of certain system. Find out the correct answer for the unsolved equation on that basis.
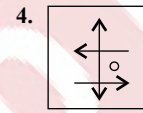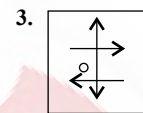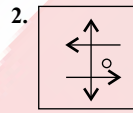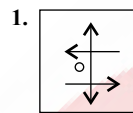
$9 \times 6 \times 2 = 269$, $8 \times 6 \times 5 = 568$, $5 \times 4 \times 1 = ?$

  1. 201   **2.** 145   **3.** 415   **4.** 451

**64.** From the given answer figures, select the one in which the question figure is hidden / embedded.
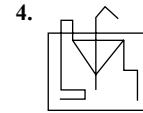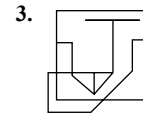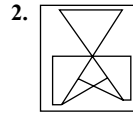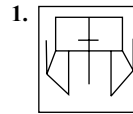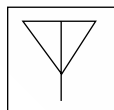

65. If a mirror is placed on the line MN which of the answer figure is the right image of the given figure?
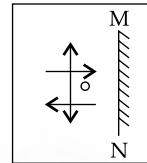
Directions: Find the odd number / letters / words from the given alternatives.

66. **1.** Kilometres **2.** Kilograms **3.** Tonnes **4.** Quintals

67. **1.** JKNQ   **2.** DEGJ   **3.** YZBE   **4.** QRTW

68. **1.** 154   **2.** 119   **3.** 85   **4.** 51

69. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.
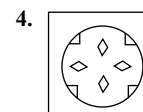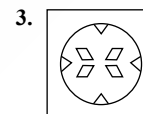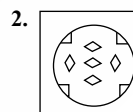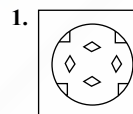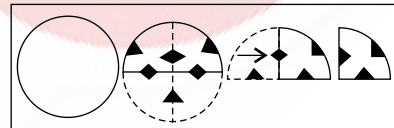
70. Which one of the given responses would be a meaningful order of the following?

  1. Family   **2.** Community

  3. Member   **4.** Locality

  5. Country

  1. 3, 1, 2, 4, 5   **3.** 3, 1, 4, 2, 5

  2. 3, 1, 2, 5, 4   **4.** 3, 1, 4, 5, 2

71. The age of father is twice that of the elder son. After ten years, the age of father will be three times that of the younger son. If the difference of ages of the two sons is 15 years, the age of the father is ?

  1. 70 years   **2.** 55 years   **3.** 60 years   **4.** 50 years

72. If NAME is coded as MZLD, how will CLAIM be coded?

  1. BKZII   **2.** BKYHL   **3.** BKZHL   **4.** BKZHI

73. Which one of the following diagrams represents the relationship among:

Fruits, Mango, Banana

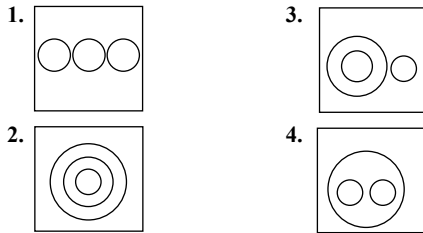**74.** A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., 'A' can be represented by 00,44, etc., and 'P' can be represented by 56, 79 etc. Similarly, you have to identify the set for the word **ZEST**.

Matrix-I	0	1	2	3	4
0	A	R	B	C	E
1	T	H	S	E	R
2	R	E	H	D	S
3	S	D	T	O	C
4	E	B	O	R	A

Matrix-II	5	6	7	8	9
5	K	P	I	L	M
6	X	W	Z	M	G
7	F	I	K	X	P
8	G	N	F	L	W
9	N	P	X	Z	L

1. 89, 13, 03, 01
2. 98, 13, 30, 10
3. 89, 31, 30, 01
4. 98, 13, 33, 04

75. Which answer figure will complete the pattern in the question figure?

1. **2.** **3.** **4.**
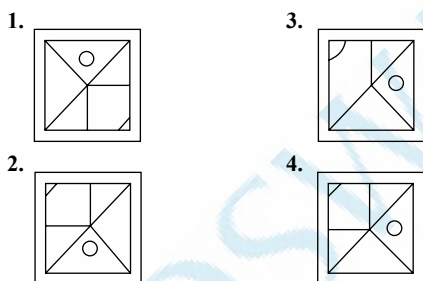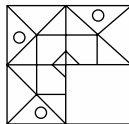
Numerical Aptitude

76. P invests ₹ 9100 for 3 months, Q invests ₹ 6825 for 2 months and R ₹ 8190 for 5 months in a business. If the total profit amounts to ₹ 4158, how much profit should Q get?
1. ₹ 346.50   **2.** ₹ 693   **3.** ₹ 682.50   **4.** ₹ 1386

77. A contractor has the target of completing a work in 40 days. He employed 20 persons who completed (¼) of the work in 10 days and left. The number of persons he has to employ to finish the remaining part as per target is :
1. 20   **2.** 40   **3.** 30   **4.** 10

78. The average of three numbers of which greatest is 6 is 12. If the smallest is half of the greatest, the remaining number is :
1. 12   **2.** 14   **3.** 8   **4.** 10

79. A person covers a certain distance in 6 hours, if travels at 40 km/ hour. If he has to cover the same distance in 4 hours, then his speed must be :
1. 50 km/hour   **3.** 70 km/hour
2. 80 km/hour   **4.** 60 km/hour

80. By selling a coat of ₹ 630, a shopkeeper gains 5%. Find the cost price of the coat?
1. ₹ 650   **2.** ₹ 625   **3.** ₹ 600   **4.** ₹ 700

81. Two varieties of sugar are mixed together in a certain ratio. The cost of the mixture per Kg is ₹ 0.50 less than that of the superior and ₹ 0.75 more than the inferior variety. The ratio in which the superior and inferior varieties of sugar have been mixed is :
1. 2 : 3   **2.** 5 : 1   **3.** 5 : 2   **4.** 3 : 2

82. P, Q and R can do a piece of work in 60 days, 100 days and 80 days respectively, They together work to finish the work and receive ₹ 2256. Then P will get?
1. ₹ 960   **2.** ₹ 576   **3.** ₹ 564   **4.** ₹ 752

83. A box contains one rupee, fifty-paise and twenty-five paise coins. The total number of coins are 378. The ratio of values of the above coins is 13 : 11 : 7. The number of twenty-five paise coins was :
1. 132   **2.** 78   **3.** 210   **4.** 168

84. The selling price of a radio was ₹ 255 when 15% discount was allowed. Then the marked price of the radio was?
1. ₹ 400   **2.** ₹ 300   **3.** ₹ 350   **4.** ₹ 275

85. The unit's digit of the number $6^{256} - 4^{256}$ is :
1. 1   **2.** 4   **3.** 0   **4.** 7

86. Ram's income is ₹ 100 more than that of Shyam. If the average income of Ram and Shyam is ₹ 850, then Ram's income is :
1. ₹ 900   **2.** ₹ 800   **3.** ₹ 850   **4.** ₹ 475

87. In a college, $^1/_5$th of the girls and $^1/_8$th of the boys took part in a social camp. The total number of students in the college took part in the camp is :
1. $\dfrac{13}{80}$ **2.** $\dfrac{2}{13}$ **3.** $\dfrac{4}{15}$ **4.** $\dfrac{13}{40}$

88. Each side of a square is increased by 10%. The percentage increase of its area is :
1. 20   **2.** 25   **3.** 21   **4.** 12.5

Directions of Questions 89 and 90

The pie-diagram shows he expenditure incurred on the printing of a book by a publisher, under various heads. Study the pie-diagram and answer the questions.
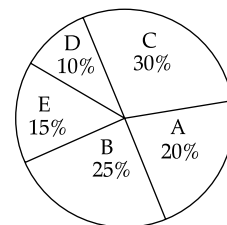
89. If the expenditure incurred on the printing under head A is ₹ 5000/-. Then the sum of expenditure incurred under head B and D is :
1. ₹ 5780   **2.** ₹ 7850   **3.** ₹ 8750   **4.** ₹ 8570

90. The two expenditures, which together will form an angle of 108° at the centre are :
1. A & D   **2.** D & E   **3.** A & E   **4.** B & E

91. A two wheeler depreciates at 20% of its value every year. If present value of the same be ₹ 90000, its depreciated value would be ₹ 36864 after :
1. 3 years   **2.** 6 years   **3.** 4 years   **4.** 5 years

92. A sum was doubled with 12½% rate of simple interest, per annum. Then time taken for that sum is :
1. 10 years   **2.** 8 years   **3.** 12½ years   **4.** 8½ years

93. The price of a bicycle is marked by a trader at ₹ 1000. He sold the bicycle allowing successive discounts of 20%, 10% and 5%. Thus the trader gained 14% then the cost price of bicycle (in rupees) is :
1. 790   **2.** 600   **3.** 510   **4.** 560

94. The price of electricity has been increased by 25%. If a person wants to keep the expenditure same, then the percentage reduction in use of electricity should be :
1. 19   **2.** 20   **3.** 21   **4.** 18

95. A dealer marks his goods 20% above cost price. He then allows some discount on it and makes a profit of 8%. The rate of discount is :
1. 6%   **2.** 10%   **3.** 4%   **4.** 12%

96. The radius of a sphere is doubled. The percentage of increase in its surface area is :
1. 100   **2.** 400   **3.** 75   **4.** 300

97. The ratio of the areas of two square one having double its diagonal than the other is ?
1. 3 : 2   **2.** 2 : 1   **3.** 4 : 1   **4.** 3 : 1

98. A man travels 600 km by train at 80 km/hour, 600 km by ship at 30 km/hour, 500 km by aeroplane at 400 km/hour and 300 km by car at 60 km/hour. What is the average speed (km/hour) for the entire distance ?
1. 63   **2.** $62\frac{7}{27}$ **3.** $56\frac{7}{27}$ **4.** $59\frac{7}{27}$

99. A man retired from his service at the age of 60. He served for $^3/_5$th years of his retirement age. He joined his job at the age of:
1. 20 years   **2.** 18 years   **3.** 24 years   **4.** 36 years

100. A man purchased 120 reams of paper at ₹ 80 per ream. He spent ₹ 280 on transportation, paid octroi at the rate of 40 paise per ream and paid ₹ 72 to a porter. In order to gain 8%, he must sell each ream of paper for :
1. ₹ 90   **2.** ₹ 85   **3.** ₹ 89   **4.** ₹ 87.5

General Awareness

101. In earth atmosphere, which of the following continuously decreases with height?
1. Wind velocity   **3.** Pressure
2. Temperature   **4.** Humidity

102. Which state in India has the largest coastline?
1. Andhra Pradesh   **3.** Tamil Nadu
2. Gujarat   **4.** Maharashtra

103. The Crop Development Programme of the Government of India covers which of the following groups of commercial crops?
1. Tea, Cotton and Rubber   **3.** Cotton , Jute and Sugarcane
2. Jute, Tea and Coffee   **4.** Tea, Coffee and Spices

104 Under the Constitution of India who are the ultimate sovereign?
1. President of India.   **3.** Prime Minister of India.
2. Indian People.   **4.** All elected leaders of India.

105. Which of the following does not belong to physical environment?
1. Lithosphere   **3.** Hemisphere
2. Atmosphere   **4.** Hydrosphere

106. An example of a solution of liquid in solid is:
1. jelly   **2.** rubber   **3.** foam   **4.** smoke

107. Which one of the following is not correctly matched?
1. Iron-ore – Kudremukh   **3.** Manganese – Koraput
2. Copper – Khetri   **4.** Coal – Singreni

108. Which was the instrument that was played by Ustad Bismillah Khan?
1. Sitar   **2.** Shehnai   **3.** Santoor   **4.** Flute

109. Loss of water in plants in the form of liquid is known as :
1. Osmosis   **3.** Transpiration
2. Imbibition   **4.** Guttation

110. Which memory is both static and non-volatile?
1. RAM   **2.** CACHE   **3.** ROM   **4.** BIOS

111. The Modi Government at the Centre has formed NITI AYOG by replacing which one of the following ?
1. Finance Commission
2. Planning Commission
3. Agricultural Price Commission
4. Fiscal Commission

112. Poverty in India is measured through one of the following criteria :
1. number of rooms of the residence
2. intake of the calories
3. education level of the family
4. number of family members

113. The Attorney General of India is appointed by the :
1. Prime Minister   **3.** President of India
2. Law Minister   **4.** Home Minister

114. Which of the following cannot act as a bleaching agent?
1. Nitrous oxide   **3.** Chlorine
2. Sulphur dioxide   **4.** Hydrogen peroxide

115. Which table in an operating system contains information about all the open files?
1. open-file table   **3.** open table
2. open-seek table   **4.** open-location table

116. The aim of the Antyodaya Programme is
1. Uplifting minorities
2. Eliminating urban
3. Improving the standards of scheduled castes
4. Helping the poorest among the poor

117. Which of the following states has recently launched the Annapurna Rasoi Yojna for providing quality meals to weaker sections at subsidised rates?
1. Uttar Pradesh   **3.** Madhya Pradesh
2. West Bengal   **4.** Rajasthan

118. For Commercial Banks lending the 'Priority Sector' denotes :
1. Self employed
2. Small industrialists
3. Agriculture and Small scale industries
4. Small farmers

119. The toxic metal associated with the Minamata episode is :
1. cadmium   **2.** lead   **3.** mercury   **4.** arsenic

120. The release of which of the following into ponds and wells helps in controlling the mosquitoes?
1. Crab   **3.** Snail
2. Dogfish   **4.** Gambusia fish

121. Sun Yat Sen was the leader of :
  1. Taiping Rebellion   **3.** CPC Party
  2. Boxer Revolt   **4.** KMT Party

122. A biome is :
  1. A group of plants growing in a particular area
  2. A delimited area
  3. A complex of communities characterized by distinctive climate & vegetation
  4. A collection of rate plants & animals

123. The lens of the eye is behind the :
  1. Pupil   **3.** Retina
  2. Vitreous human   **4.** Optic nerve

124. Which of the following income will not be included in national income calculation ?
  1. Income of a joker in a circus company
  2. Income of a commercial artist
  3. Commission income of a share broker
  4. Individual's income from sale of shares

125. Which one of the following states is known as 'Garden of Spices'?
  1. Kerala   **3.** Gujarat
  2. Karnataka   **4.** Tamil Nadu

126. Pillared halls where the Buddhist monks worshipped were known as :
  1. Chaityas   **2.** Mathas   **3.** Viharas   **4.** Stupas

127. Which of the following is a semiconductor?
  1. silver   **2.** copper   **3.** glass   **4.** silicon

128. Milkiness observed on passing carbon dioxide through lime water is due to the formation of :
  1. Calcium carbonate   **3.** Calcium hydroxide
  2. Calcium chloride   **4.** Calcium bicarbonate

129. Elasticity of demand of luxury goods is :
  1. Less than one   **3.** Zero
  2. Infinite   **4.** More than one

130. A system program designed to aid the programmer in finding and correcting errors or bugs is known as :
  1. Debugger   **3.** Corrector
  2. Evaluator   **4.** Quarantiner

131. Both the Tropic of Cancer and the Tropic of Capricorn pass through :
  1. South America   **3.** Africa
  2. Asia   **4.** Australia

132. Who among the following built the Golden Temple at Amritsar?
  1. Guru Gobind Singh   **3.** Guru Nanak
  2. Guru Teg Bahadur   **4.** Guru Arjun Dev

133. Who has been elected as the new Secretary General of the United Nations?
  1. Antonio Guterras   **3.** Lewis Hamilton
  2. Ban Ki-moon   **4.** Juan Manuel Santos

134. After a shower of rain, a rainbow is seen :
  1. anywhere, irrespective of the position of the sun
  2. even in the absence of the sun
  3. towards the sun
  4. opposite the sun

135. Who decides about the size and membership of the Council of ministers?
  1. Lok Sabha   **3.** Prime Minister
  2. Chairman of the Rajya Sabha   **4.** President

136. Varun Singh Bhati who won bronze at 2016 Rio Paralympics Games is associated with which sports?
  1. Badminton   **3.** High Jump
  2. Short Put   **4.** Javelin Throw

137. The maximum number of Mongol invasions took place during the reign of :
  1. Muhammad bin Tughlaq   **3.** Firoz Tughlaq
  2. Balban   **4.** Alauddin Khilji

138. Microsoft Excel is a
  1. Graphics Package   **3.** Electronic Spreadsheet
  2. MS Office Package   **4.** Financial Planning Package

139. In the Panchayat Raj System, "the Panchayat Samiti" is constituted at the :
  1. State level   **3.** Block level
  2. District level   **4.** Village level

140. Participation is an important element of every :
  1. Aristocratic system   **3.** Democratic system
  2. Oligarchical system   **4.** Monarchial system

141. The Kailasanatha Temple (Siva Temple) at Kanchipuram containing sculptures with paintings in the inner wall, was built by?
  1. Narasimhavarnam   **3.** Mahendravarman
  2. Ravivarman   **4.** Devavarman

142. Element that is not found in blood is :
  1. chromium   **3.** magnesium
  2. copper   **4.** iron

143. Govind Ballabh Pani Sagar reservoir is situated in :
  1. Jharkhand   **3.** Chhattisgarh
  2. Uttar Pradesh   **4.** Uttarakhand

144. The teeth lacking in Herbivorous animal is :
  1. Molar   **2.** Canine   **3.** Incissor   **4.** Premolar

145. Of the following, which one is non-contractual earning?
  1. Profit   **2.** Interest   **3.** Rent   **4.** Wage

146. Which one of the following gases released from bio-gas plant is used as a fuel gas ?
  1. Ethane   **2.** Butane   **3.** Propane   **4.** Methane

147. The title of 'Gangai Kondan' was adopted by the following Chola King:
  1. Vijayalaya   **3.** Rajaraja I
  2. Karikala   **4.** Rajendra I

148. Volt × Second/Coulomb is the unit of
  1. Inductance   **3.** Capacitance
  2. Resistance   **4.** Energy

149. Excretory organ of cockroach is :
  1. Nephridia   **3.** Kidney
  2. Malpighian tubules   **4.** Malpighian Corpuscles

150. The number of players in a Futsal team is
  1. 8   **2.** 6   **3.** 5   **4.** 9

Answer Key

1.	(4)	**2.**	(1)	**3.**	(4)	**4.**	(3)	**5.**	(2)	**6.**	(2)	**7.**	(1)	**8.**	(2)	**9.**	(3)	**10.**	(3)
11.	(2)	**12.**	(3)	**13.**	(1)	**14.**	(2)	**15.**	(4)	**16.**	(3)	**17.**	(1)	**18.**	(2)	**19.**	(2)	**20.**	(2)
21.	(1)	**22.**	(3)	**23.**	(1)	**24.**	(2)	**25.**	(1)	**26.**	(3)	**27.**	(3)	**28.**	(2)	**29.**	(2)	**30.**	(4)
31.	(4)	**32.**	(4)	**33.**	(3)	**34.**	(1)	**35.**	(2)	**36.**	(4)	**37.**	(4)	**38.**	(1)	**39.**	(1)	**40.**	(2)
41.	(3)	**42.**	(1)	**43.**	(2)	**44.**	(2)	**45.**	(3)	**46.**	(3)	**47.**	(1)	**48.**	(4)	**49.**	(1)	**50.**	(4)
51.	(4)	**52.**	(3)	**53.**	(1)	**54.**	(1)	**55.**	(2)	**56.**	(3)	**57.**	(3)	**58.**	(2)	**59.**	(3)	**60.**	(3)
61.	(3)	**62.**	(1)	**63.**	(2)	**64.**	(4)	**65.**	(1)	**66.**	(1)	**67.**	(1)	**68.**	(1)	**69.**	(1)	**70.**	(3)
71.	(4)	**72.**	(3)	**73.**	(4)	**74.**	(2)	**75.**	(4)	**76.**	(2)	**77.**	(1)	**78.**	(1)	**79.**	(4)	**80.**	(3)
81.	(4)	**82.**	(1)	**83.**	(4)	**84.**	(2)	**85.**	(3)	**86.**	(1)	**87.**	(4)	**88.**	(3)	**89.**	(3)	**90.**	(1)
91.	(3)	**92.**	(2)	**93.**	(2)	**94.**	(2)	**95.**	(4)	**96.**	(4)	**97.**	(3)	**98.**	(4)	**99.**	(4)	**100.**	(1)
101.	(2)	**102.**	(2)	**103.**	(3)	**104.**	(2)	**105.**	(3)	**106.**	(1)	**107.**	(1)	**108.**	(2)	**109.**	(4)	**110.**	(3)
111.	(2)	**112.**	(2)	**113.**	(3)	**114.**	(1)	**115.**	(1)	**116.**	(4)	**117.**	(4)	**118.**	(3)	**119.**	(3)	**120.**	(4)
121.	(4)	**122.**	(1)	**123.**	(3)	**124.**	(4)	**125.**	(1)	**126.**	(1)	**127.**	(4)	**128.**	(1)	**129.**	(4)	**130.**	(1)
131.	(3)	**132.**	(4)	**133.**	(1)	**134.**	(4)	**135.**	(3)	**136.**	(3)	**137.**	(4)	**138.**	(2)	**139.**	(3)	**140.**	(3)
141.	(1)	**142.**	(1)	**143.**	(2)	**144.**	(2)	**145.**	(3)	**146.**	(4)	**147.**	(4)	**148.**	(2)	**149.**	(2)	**150.**	(3)

Answers with Explanations

1.　Option (4) is correct.
The correct sentence is: This sponge is not able to absorb water. The infinitive form 'to' is always followed by the base form of the verb; hence 'to absorb water' will replace 'to absorbing water'.

2.　Option (1) is correct.
The correct sentence is: I think I will go to the market later this afternoon. Use of 'think' in Progressive tenses is incorrect. Certain verbs like 'hope, think, believe' most of the times take the base forms than the continuous form.

3.　Option (4) is correct.
The correct sentence is: I am too pleased to know that you have topped the list. 'Too much' is used in a negative sense. Hence, I am very (much) pleased is the right usage, or 'too pleased to know'.

4.　Option (3) is correct.
The correct sentence is: Have you been doing what has been asked of you? Here, 'what has been asks of you?' will be replaced by 'what has been asked of you?' The present perfect form 'has been' is always followed by the past participle form of verb (asked).

5.　Option (2) is correct.
The correct sentence is: We rejoiced at his being promoted. Here, 'being promoted' is the correct usage. There is no error in the sentence.

6.　Option (2) is correct.
The correct sentence is: Kindly submit your documents to the clerk. There is no error in the sentence.

7.　Option (1) is correct.
The correct sentence is: It is the most beautiful painting in the gallery. Here, 'a most beautiful painting' will be replaced by 'the most beautiful painting'. It is to be noted that with superlative degree of adjective (most beautiful), the definite article 'the' agrees, instead of 'a'.

8.　Option (2) is correct.
The correct sentence is: Love for our environment is enough to protect nature. Here, 'our environment' will replace 'ours environment'. Ours is a possessive pronoun used to indicate ownership of something by you and someone else. However, "our" is always used before a noun to indicate possession, ours is used in place of a noun.

9.　Option (3) is correct.
The correct sentence is: He is not what you would call an honest man, is he? Since the main clause is negative, question tag should be 'is he?'

10.　Option (3) is correct.
The correct sentence is: He has not been attending English classes since one week. Here, 'for one week' will be replaced by 'since one week'. The word 'for' is used to show a period of time, in the past, present or future. The word 'since' is used to refer to a time (an action that begun in the past and is still continuing).

11.　Option (2) is correct.
The correct sentence is: Since she is a teacher of language, one would not expect her to be guilty of a solecism. Solecism' means 'a grammatical mistake in speech or writing'. Here, one would not expect the teacher, to be guilty of 'a grammatical mistake'. 'Schism' means 'a split or division between people or groups'. 'Bombast' is 'a high-sounding language with little meaning. 'Stanchion' is 'a frame forming a support or barrier'.

12.　Option (3) is correct.
The correct sentence is: Anna is not popular. She has few friends. 'Few' means not many, 'a few' means 'a small number'. 'Little' is used with uncountable nouns. Here, few is the right usage.

13.　Option (1) is correct.
The correct sentence is: Sally parked and got out of the car quickly. The phrase 'got out' is correct because after parking the car, Sally must have got out of it.

14.　Option (2) is correct.
The correct sentence is: Even though she can't drive, Anita has bought a car. 'Even though' implies 'though, in spite of.' Even though means despite the fact that. 'Even if' means whether or not and has to do with the conditions that may apply.

15.　Option (4) is correct.
The correct sentence is: You will have to face some practical problems when you start executing this plan. The word 'executing' means 'put (a plan, order, or course of action) into effect.' 'Prosecting' means 'pursue until finished'. 'Proscribing' means to forbid an action or practice officially.

16.　Option (3) is correct.
The correct sentence is: They were worried about a new cult which was gaining many followers. Here, 'was gaining' is the

right usage. The sentence is in past tense, so the blank will also take the past form of the verb.

17. **Option (1) is correct.**
The correct sentence is: The actor died when his car turned turtle. The expression 'turn turtle' means to turn upside down, implying that the truck turned turtle and the driver was killed.

18. **Option (2) is correct.**
The correct sentence is: A man is known by the company he keeps. A man is known by the company he keeps means that a person is similar to the people he chooses to spend time with. People are similar in character to their friends.

19. **Option (2) is correct.**
The correct sentence is: He must repay the loans. Repay means pay back (a loan). Other words are not in accordance to the context.

20. **Option (2) is correct.**
The correct sentence is: The convict was hanged on a Monday. Hung is the past tense of to hang when it means "to suspend or be suspended." Hanged is the past tense of to hang when it means "to kill someone by tying a rope attached from above and removing the support from beneath.

21. **Option (1) is correct.**
'Authentic' implies 'genuine'. Therefore, 'fake' is the antonym.

22. **Option (3) is correct.**
'Methodical' implies 'done according to a systematic or established procedure.' Therefore, 'random' is the antonym.

23. **Option (1) is correct.**
'Polite' implies 'courteous'. Therefore, 'rude' is the antonym.

24. **Option (2) is correct.**
'Rural' means 'in, relating to, or characteristic of the countryside rather than the town.' 'savage' means without civilising influences. Therefore, in 'a primitive or uncivilised state' is 'savage'.

25. **Option (1) is correct.**
'Routine' refers to a sequence of actions regularly followed. Annually means once a year.

26. **Option (3) is correct.**
A pilgrim is a person who journeys to a sacred place for religious reasons. 'Theist' is someone who believes in the existence of a god or gods. Therefore, the correct answer is 'theist'.

27. **Option (3) is correct.**
The meaning of disarrange is to disturb the arrangement or order of. 'Negligence' means 'failure to take proper care over something.' Therefore, the correct answer is 'negligence'.

28. **Option (2) is correct.**
'Audience' refers to listeners at a public event such as a play, film, concert, or meeting; 'spectator' refers to a person who watches at a show, game, or other event. Therefore, the correct answer is 'audience'.

29. **Option (2) is correct.**
How long I will stay is doubtful. The sentences expresses the ability/uncertainty , for which the modal 'will' is preferred over 'shall'.

30. **Option (4) is correct.**
The correct sentence is: Even at the peak of her success, Kalpana Chawla did not forget her home or her duty towards other human, this is evident from the fact that she contributed to the education of girls in India. The verb 'contributed' is appropriate as it means to give (something) in order to help achieve or provide something. The definite article 'the' will sit before education, to specify Kalpana Chawla's contribution in the field of education of girls in India.

31. **Option (4) is correct.**
The correct sentence is: Every person is not fit for everything. Here, 'is not fit' will replace 'was not fitted'. The sentence refers to a general truth/fact, so it will agree with simple present tense.

32. **Option (4) is correct.**
The doctor scribbed his prescription which I could not make out. The phrasal verb 'make out' means 'manage with some difficulty to see or hear someone or something.' 'Make over' means transfer the possession of something to someone. 'Make for' implies to go toward (a place) quickly. Therefore, the correct answer is 'make out'. There will be no improvement.

33. **Option (3) is correct.**
The correct sentence is: Neither party deserves our help. The indefinite pronoun always takes a singular noun/pronoun and a singular verb. Therefore, 'party deserves' is correct.

34. **Option (1) is correct.**
'Stationery' means 'writing and other office materials.' Therefore, the correct answer is 'writing accessories'.

35. **Option (2) is correct.**
'Abhorrent' means 'inspiring disgust and loathing'. Therefore, the correct answer is 'repugnant' (objectionable).

36. **Option (4) is correct.**
'Innocent' implies 'not guilty of a crime or offence.' Therefore, the correct answer is 'guiltless'.

37. **Option (4) is correct.**
The correctly spelt word is 'municipal'.

38. **Option (1) is correct.**
The correctly spelt word is 'journal'.

39. **Option (1) is correct.**
The correctly spelt word is 'license'.

40. **Option (2) is correct.**
The correctly spelt word is 'harass'.

41. **Option (3) is correct.**
The correctly spelt word is 'separate'.

42. **Option (1) is correct.**
The correctly spelt word is 'exhilarate'.

43. **Option (2) is correct.**
The phrase 'pass muster' means 'be accepted as adequate or satisfactory.' Therefore, the correct answer is 'meets required standards.'

44. **Option (2) is correct.**
The phrase 'all and sundry' means 'everyone.' Therefore, the correct answer is 'all the people.'

45. **Option (3) is correct.**
The phrase 'losing canon' means someone who behaves in an uncontrolled or unexpected way and is likely to cause problems for other people. Therefore, the correct answer is 'one who acts crazy.'

46. **Option (3) is correct.**
It is stated that Mr. Rodgers, in the 'most formidable way, he seemed to be always frowning at the world in general', and this is evident in the way he behaved at the assembly.' This frowning was apparent at the assembly, where he was like an inspecting officer in the army. Therefore, the correct answer is 'a formidable teacher.'

47. **Option (1) is correct.**
The staff considered Mr. Rogers to be an intimidating person. This is truly evinced in the words of Mr. Jones, the chemistry master who described him as a 'dehydrated old sadist' as Mr. Rogers was ruthless and cruel in public. Therefore, the correct answer is 'an intimidating person.' All other options describe Mr. Rogers in a positive way.

48. Option (4) is correct.

"In a most intimidating way" means in an extremely frightening manner. Mr. Rogers is described as always frowning at the world, with his list of morning rebukes for the most venial offence, where the offender was subjected to a tirade of abuse that would leave him trembling or even in tears. This, qualifies him to be behaving in an extremely frightening manner.

49. Option (1) is correct.

The word 'magnanimous' means 'generous or forgiving, especially towards a rival or less powerful person.' The fact that Mr. Rogers could he magnanimous and gentle on occasions signify that he could be opposite of being intimidating.

50. Option (4) is correct.

When the boys visited Mr. Rogers in private, they 'would receive a sympathetic hearing, and went out feeling that the burden had been lightened.' This implies that they seemed relieved of their troubles.

51. Option (4) is correct.

RATE word cannot be formed using the word VENTURE.

52. Option (3) is correct.

+ means ×

− means ÷

× means −

÷ means +

Then, $9 + 8 ÷ 8 − 4 × 6 = ?$ can be written as:

$= 9 × 8 + 8 ÷ 4 − 6$

$= 9 × 8 + 2 − 6$

$= 72 + 2 − 6$

$= 74 − 6 = 68$

53. Option (1) is correct.

ACE, GIK, ?, SUW, YAC

ACE $\Rightarrow$ A + 2 → C, C + 2 → E

And, E + 2 → G, G + 2 → I, I + 2 → K

Similarly, K + 2 → M, M + 2 → O, O + 2 → Q

Hence, MOQ is the correct answer.

54. Option (1) is correct.

2, 5, 10, 17, 26, ?

$1^2 + 1 = 2$

$2^2 + 1 = 5$

$3^2 + 1 = 10$

$4^2 + 1 = 17$

$5^2 + 1 = 26$

$6^2 + 1 = 37$

55. Option (2) is correct.

4	8	2
3	2	2
5	8	?
60	128	68

Columnwise:

1st number × 2nd number × 3rd number = 4th number

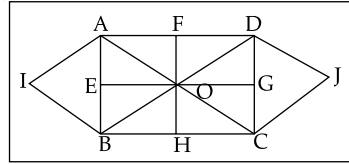Column 1: $4 × 3 × 5 = 60$

Similarly, Column 3:

$2 × 2 × ? = 68$

$? = \dfrac{68}{4} = \textbf{17}$

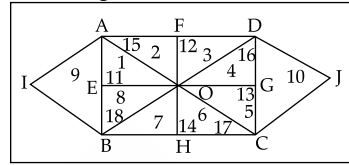**56. Option (3) is correct.**
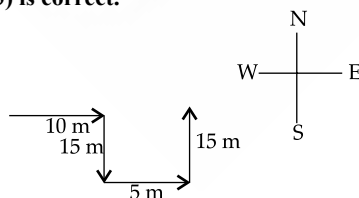
57. Option (3) is correct.

Total number of triangles = 18

58. Option (2) is correct.

8 : 512 : : 9 : ?

$8 × 8 × 8 = 512$

Similarly, $9 × 9 × 9 = 729$

59. Option (3) is correct.

ADIP : DGLS :: BEJQ : ?

The pattern followed here is (n+3) A + 3 = D,

D + 3 = G

I + 3 = L

P + 3 = S

Similarly, BEJQ can be written as:

B + 3 = **E**

E + 3 = **H**

J + 3 = **M**

Q + 3 = **T**

60. Option (3) is correct.

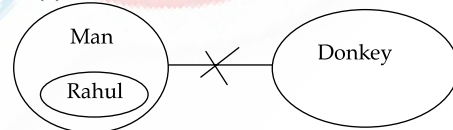Author uses pen. Similarly, doctor uses stethoscope.

61. Option (3) is correct.

POLITE: ETILOP

The letters of the word are written in the reverse order

Similarly, SINGLE: ELGNIS shares the same relationship.

62. Option (1) is correct.

(I) From diagram Rahul is not a donkey.   — True

(II) Some man are Rahul but cannot say definitely about all men.   — False

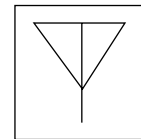Hence, only conclusion I follows.

63. Option (2) is correct.

$9 × 6 × 2 = 269, 8 × 6 × 5 = 568, 5 × 4 × 1 = ?$
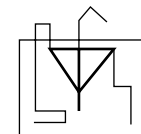
Each single number is written in reverse order. Hence,
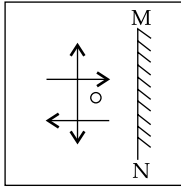
$5 × 4 × 1 = ?$
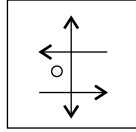
$= 145$

64. Option (4) is correct.

The given image is embedded in the option 4 figure as highlighted below:

65. Option (1) is correct.

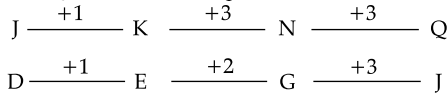In a mirror image left becomes right and right becomes left

66. Option (1) is correct.

Kilometre is a unit to measure the length (distance). Kilogram, Quintals, tonnes are unit to measure the mass.

67. Option (1) is correct.

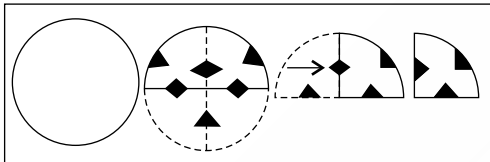JKNQ follows different pattern than DEGJ, YZBE, QRTW

$$J \xrightarrow{+1} K \xrightarrow{+3} N \xrightarrow{+3} Q$$

$$D \xrightarrow{+1} E \xrightarrow{+2} G \xrightarrow{+3} J$$
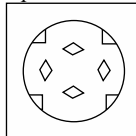
68. Option (1) is correct.

154, 119, 85, 51

119, 85, 51 is divisible by 17 except 154.

69. Option (1) is correct.

Follow the logic and the pattern.

70. Option (3) is correct.

Member	Family	Locality	Community	Family

71. Option (4) is correct.

Let the present age of father be A

The present age of elder son be B

And present age of younger son be C

The present age of the father is twice that of the elder son.

A = 2B

After 10 years

A + 10 = 3 (C +10)

A = 3C + 20

$\Rightarrow$ 2B = 3C + 20

$\Rightarrow$ B = 3/2C + $\dfrac{20}{2}$

The difference between the ages of 2 sons is 15 years

B – C = 15

or B = C+15

$\Rightarrow$ 3/2C + $\dfrac{20}{2}$ = C + 15

$\Rightarrow$ 3C + 20 = 2C + 30

$\Rightarrow$ C = 30 – 20 = 10

B = C + 15

= 10 + 15 = 25

A = 3C + 20

= 3 × 10 + 20

= 30 + 20 = 50

So, the values of A, B and C are A = 50, B = 25, C = 10

Hence, The age of father is 50 years.

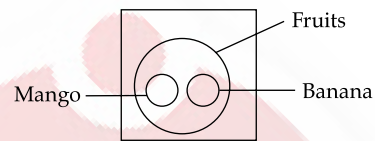**72. Option (3) is correct.**

NAME is coded as MZLD

Here, each letter is decreasing by 1 positional value.

Similarly, CLAIM can be written as: BKZHL

73. Option (4) is correct.

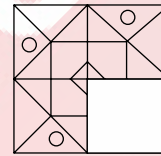Fruits, Mango, Banana.

Both Mango and Banana are Fruits.

So, the best suited venn diagram is as follows:

74. Option (2) is correct.

Z- 67, 98

E- 13, 04, 21, 40

S- 12, 24, 30

T- 10, 32

ZEST = 98, 13, 30, 10

75. Option (4) is correct.

Follow the logic and the pattern.
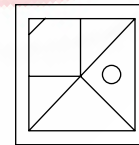
76. Option (2) is correct.

The ratio of sharing of P, Q and R

= 9100 × 3 : 6825 × 2 : 8190 × 5 = 2 : 1 : 3

Profit share of Q = $\dfrac{1}{2+1+3} \times 4158$ = $\dfrac{1}{6} \times 4158$ = ₹ 693

77. Option (1) is correct.

Since 20 persons work and complete $\dfrac{1}{4}$ part of the work in 10 day.

$\because$ Total work = 20 × 10 × 4 = 800 men days

Remaining work = $1 - \dfrac{1}{4} = \dfrac{3}{4}$

Remaining men days = 800 × $\dfrac{3}{4}$ = 600 men day.

Remaining days = 40 – 10 = 30 day.

$\therefore$ Number of employees to finish the remaining part = $\dfrac{600}{30}$

= 20 employees.

78. Option (1) is correct.

Greatest number = 16

Smallest number = $\dfrac{1}{2} \times 16 = 8$

Let other number be x

$\therefore \qquad \dfrac{16 + 8 + x}{3} = 12$

$24 + x = 36 \Rightarrow x = 36 - 24 = 12$

79. Option (4) is correct.

$\therefore \qquad$ Distance = Speed × Time

$= 10 \times 36 = 240$ km.

Speed $= \dfrac{\text{Distance}}{\text{Time}} = \dfrac{240}{4} = 60$ km/h.

80. Option (3) is correct.

Given that S.P of coat = ₹ 630, Gains = 5%

$\because \qquad$ C.P $= \dfrac{\text{S.P} \times 100}{100 + \text{Gains }\%}$

$= \dfrac{630 \times 100}{100 + 5} = \dfrac{630 \times 100}{105} = $ ₹ 600

81. Option (4) is correct.

Let the cost of superior = x

Then the cost of mixture = $x - 0.50$

And the cost of inferior = $x - 0.50 - 0.75 = x - 1.25$

We have

$= \dfrac{\text{Quantity of Superior}}{\text{Quantity of inferior}}$

$= \dfrac{\text{cost of mixture - cost of inferior}}{\text{cost of superior - cost of mixture}}$

$= \dfrac{(x - 0.50) - (x - 1.25)}{x - (x - 0.50)}$

$= \dfrac{x - 0.50 - x + 1.25)}{x - x + 0.50}$

$= \dfrac{0.75}{0.50} = \dfrac{3}{2} = 3 : 2$

82. Option (1) is correct.

The work efficiency ratio of P, Q and R

$= \dfrac{1}{60} : \dfrac{1}{100} : \dfrac{1}{80} = \dfrac{1200}{60} : \dfrac{1200}{100} : \dfrac{1200}{80}$

$= 20 : 12 : 15$

So, share in the profit of

$\text{P} = \dfrac{20}{20 + 12 + 15} \times 2256$

$= \dfrac{20}{47} \times 2256 = 20 \times 48 = $ ₹ 960

83. Option (4) is correct.

Let the values of coins of one rupee fifty – paise and twenty – five paise coins be $13x$, $11x$ and $7x$ respectively.

Number of coins of one rupee $= \dfrac{13x}{1} = 13x$

Number of coins of fifty paise $= \dfrac{11x}{\frac{1}{2}} = 22x$

Number of coins of twenty-five $= \dfrac{7x}{\frac{1}{4}} = 28x$.

Total number of coins = $13x + 22x + 28x$

$378 = 63x$

$\Rightarrow \qquad x = \dfrac{378}{63} = 6$

$\therefore$ Number of coins of twenty-five paise coins = $22x = 28 \times 6$

$= 168$

84. Option (2) is correct.

Given that S.P of radio = ₹ 255 and discount = 15%

Marked price $= \dfrac{\text{S.P} \times 100}{100 - \text{Discount }\%}$

$= \dfrac{255 \times 100}{100 - 15} = \dfrac{25500}{85} = $ ₹ 300.

85. Option (3) is correct.

Since $\qquad 6^1 = 6$ (unit place)

$6^2 = 6$ (unit place)

$6^{256} = 6$ (unit place)

And $\qquad 4^1 = 4$ (unit place)

$4^2 = 6$ (unit place)

$4^3 = 4$ (unit place)

$4^{256} = (4^2)^{128} = 6$ (unit place)

$\therefore$ Unit place of number of $6^{256} - 4^{256} = 6 - 6 = 0$

86. Option (1) is correct.

Let the shyam's income be ₹ x

then Ram's income be = ₹ $(x + 100)$

Average $= \dfrac{x + x + 100}{2} = 850$

$\Rightarrow \quad 2x + 100 = 1700 \Rightarrow 2x = 1600$

$\Rightarrow \qquad x = \dfrac{1600}{2} = 800$

So, Ram's income = $x + 100 = 800 + 100 = $ ₹ 900.

87. Option (4) is correct.

Total number of students in the college took part in camp =

$\dfrac{1}{5} + \dfrac{1}{8} = \dfrac{8 + 5}{40} = \dfrac{13}{40}$

88. Option (3) is correct.

Let the side of square be x unit

Area of square = x^2

New side $= x\left(1 + \dfrac{10}{100}\right) = \dfrac{11x}{10}$

New area $= \left(\dfrac{11x}{10}\right)^2 = \dfrac{121x^2}{100}$

Increase in area $= \left(\dfrac{121x^2}{100}\right) - x^2 = \dfrac{21x^2}{100}$

Percentage increase in area $= \dfrac{\frac{21x^2}{100}}{x^2} \times 100 = 21\%$

89. Option (3) is correct.

Let the total expenditure be x.

$\therefore$ Expenditure under head A $= x \times \dfrac{20}{100}$

$5000 = x \times \dfrac{20}{100}$

$\Rightarrow \qquad x \times \dfrac{5000 \times 100}{20} = $ ₹ 25000

The total sum of expenditure under head B and D

$$= 25000\left(\frac{25 + 10}{100}\right)$$

$$= 25000 \times \frac{35}{100} = ₹\ 8750$$

90. Option (1) is correct.

Total central angle of head A and D

$$= \frac{20 + 10}{100} \times 360 = \frac{30}{100} \times 360 = 108°$$

91. Option (3) is correct.

Present value of the two wheeler = ₹ 90000
Rate of depreciation = 20%
Scrap value = ₹ 36864
We have,

$$\text{Scrap value} = \text{present value}\left(1 - \frac{\text{Depreciate}}{100}\right)^n$$

$$36864 = 90000\left(1 - \frac{20}{100}\right)^n$$

$$\Rightarrow \frac{36864}{90000} = \left(\frac{4}{5}\right)^n$$

$$\Rightarrow \frac{4096}{10000} = \left(\frac{4}{5}\right)^n$$

$$\Rightarrow \frac{256}{625} = \left(\frac{4}{5}\right)^n \Rightarrow \left(\frac{4}{5}\right)^4 = \left(\frac{4}{5}\right)^n$$

$$\Rightarrow \quad n = 4 \text{ years.}$$

92. Option (2) is correct.

Let the principal be x then amount be $2x$

$$\therefore \quad\quad\quad \text{S.I} = 2x - x = x$$

$$\therefore \quad\quad\quad \text{S.I} = \frac{\text{PRT}}{100}$$

$$x = \frac{x \times 25 \times \text{T}}{2 \times 100}$$

$$\Rightarrow \quad\quad \text{T} = \frac{200}{25} = 8 \text{ years}$$

93. Option (2) is correct.

$$\text{S.P} = 1000\left(1 - \frac{20}{100}\right)\left(1 - \frac{10}{100}\right)\left(1 - \frac{5}{100}\right)$$

$$= 1000 \times \frac{4}{5} \times \frac{9}{10} \times \frac{19}{20}$$

$$= 4 \times 9 \times 19 = ₹\ 684$$

$$\text{C.P} = \frac{\text{S.P} \times 100}{100 + \text{Gain \%}} = \frac{684 \times 100}{100 + 14}$$

$$= \frac{684 \times 100}{114} = ₹\ 600$$

94. Option (2) is correct.

Let the price of 100 units electricity be ₹ 100

New price be $100\left(1 - \dfrac{25}{100}\right) = 100 \times \dfrac{5}{4} = 125$

Since the person expends ₹ 125 for 100 units

$$\therefore \text{ Person expends } ₹\ 100 \text{ for } \frac{100 \times 100}{125} = 80 \text{ units}$$

So, reduction is use = 100 – 80 = 20%

95. Option (4) is correct.

Let the cost price be ₹ 100

$$\text{Marked price} = 100\left(1 + \frac{20}{100}\right) = 120$$

$$\text{S.P} = 100\left(1 + \frac{8}{100}\right) = 108$$

$\therefore$ Rate of discount = 120 – 108 = 12%

96. Option (4) is correct.

Let the radius of sphere = r
Surface area of sphere = $4\pi r^2$
New radius of sphere = $2r$

New surface area of sphere = $4p(2r)^2 = 4\pi \times 4r^2 = 16\pi r^2$

Increase in surface area = $16\pi r^2 - 4\pi r^2 = 12\pi r^2$

$$\text{Percentage of increase} = \frac{12\,\pi r^2 \times 100}{4\pi r^2} = 300\%$$

97. Option (3) is correct.

Let the diagonal of square be x

$$\text{Area of square} = \frac{1}{2}\,(\text{diagonal})^2 = \frac{1}{2}x^2$$

Diagonal of the other square be $2x$

$$\text{Area of the other square} = \frac{1}{2}(2x)^2 = 2x^2$$

$$\text{Ratio} = \frac{2x^2}{\dfrac{1}{2}x^2} = 4:1$$

98. Option (4) is correct.

$$\text{Time taken by the train} = \frac{600}{80} = \frac{15}{2} \text{ h.}$$

$$\text{Time taken by the ship} = \frac{600}{30} = 20 \text{ h.}$$

$$\text{Time taken by an aeroplane} = \frac{500}{400} = \frac{5}{4} \text{ h.}$$

$$\text{Time taken by a car} = \frac{300}{60} = 5 \text{ h.}$$

$$\text{Total time} = \frac{15}{2} + 20 + \frac{5}{4} + 5$$

$$= \frac{30 + 80 + 5 + 20}{4} = \frac{135}{4} \text{ h.}$$

Total distance = 600 + 600 + 500 + 300
= 2000 km

$$\text{Average speed} = \frac{2000}{\dfrac{135}{4}} = \frac{2000 \times 4}{135}$$

$$= \frac{8000}{135} = \frac{1600}{27} = 59\frac{7}{27} \text{ km/h}$$

99. Option (4) is correct.

He served the job $= \dfrac{3}{5} \times 60 = 36$ years

100. Option (1) is correct.

Purchased cost = 120 × 80 = ₹ 9600
Spent on transportation = ₹ 280
Spent on Octroi = 0.40 × 120 = ₹ 48
Spent on porter = Rs 72
Total cost = ₹ 10,000

$$\text{S.P of 120 ream} = 10000\left(1 + \frac{8}{100}\right) = ₹\ 10800$$

$$\text{S.P of 1 ream} = \frac{10800}{120} = ₹\ 90$$

101. Option (2) is correct.
In earth atmosphere, the temperature continuously decreases with height. Temperature decreases with altitude because the troposphere is warmed from below, through absorption and re-emission of incoming solar radiation by the Earth's surface, rather than being warmed from above by incoming solar radiation. The temperature of the earth decreases with height at a rate of 6.5°C per kilometre, this is called the normal lapse rate.

102. Option (2) is correct.
The Indian state Gujarat has the longest coastline in India. The length of the Gujarat coastline is about 1600 km surrounded by the Arabian Sea. Coastline refers to a line that forms the boundary between the land and the ocean or a lake. The coastline has a diversity of habitats, especially mangroves, salt marshes, coral reefs and wetlands.

103. Option (3) is correct.
The Crop Development Programme of the Government of India covers cotton, jute and sugarcane production as commercial crops. Government of India launched this programme to increase production and productivity under the National Food Security Mission.

104. Option (2) is correct.
The Indian constitution depicts that India is not a dominion of any other country but a solely independent state. According to the Indian constitution, the Indian People are the ultimate sovereign in the Indian constitution. It means people have the supreme right to take decisions on internal as well as external matters.

105. Option (3) is correct.
The Physical Environment refers to the external surroundings and conditions in which we live and which influence a person's health. Lithosphere, atmosphere and hydrosphere are a part of physical environment. Only Hemisphere from the given options is not the part of the physical environment.

106. Option (1) is correct.
From the given options, Jelly is a solution of liquid in solid. It is the crosslinking inside the liquid that gives a gel its structure (hardness) and adds to the cement stick (tack). Along these lines gels are a scattering of atoms of a fluid inside a strong in which the strong is the nonstop stage and the fluid is the broken stage.

107. Option (1) is correct.
Khetri is the town and Tehsil in Jhunjhunu district of Rajasthan state in India, famous for Copper Project. Koraput has rich mineral deposits, including aluminum ore, manganese, and limestone. Singareni is well known for its coal reserves. The Kudremukh mines lie in the Western Ghats of Karnataka. The Kudremukh mine, one of the largest iron ore mines in the world, was closed in 2006. Therefore option (a) is incorrect pair.

108. Option (2) is correct.
Ustad Bismillah Khan was an eminent Indian musician who popularized the shehnai. The shehnai is a musical instrument, originating from the Indian subcontinent. It is considered to be an auspicious instrument and is played in social ceremonies.

109. Option (4) is correct.
Loss of water in plants in the form of liquid is known as Guttation. It is the exudation of drops of xylem sap on the tips or edges of leaves of some vascular plants, such as grasses. Guttation is often confused with dew droplets that condense from the atmosphere onto the plant's surface.

110. Option (3) is correct.
ROM (Read Only Memory) is both static and non-volatile. Static random access memory (SRAM) loses its content when powered down, and is classified as volatile memory. The memory is volatile because there is no data when power is restored to the device. Data stored in ROM cannot be electronically modified after the manufacture of the memory device.

111. Option (2) is correct.
The Modi Government at the Centre has formed NITI AYOG by replacing the planning commission. The first meeting of NITI Aayog was chaired by Narendra Modi on 8th February 2015. NITI Aayog is basically a think-tank or an advisory body. The Planning Commission had the power to impose policies on States and for the projects approved by the Planning Commission. State governments plays a more active role in NITI Aayog.

112. Option (2) is correct.
In the year 1979, Prof. YK Alagh was constructed a poverty line for rural and urban areas on the basis of nutritional requirements. There are two approaches for measuring poverty in India - Household income and calories consumption. It was based on minimum daily requirement of 2,400 and 2,100 calories for an adult in rural and urban areas, respectively.

113. Option (3) is correct.
Attorney General is appointed by the President on the advice of the government. The Attorney General for India is the chief legal advisor of the Government of India and is its chief advocate in the courts. The 15th Attorney General of India is KK Venugopal, who started his services on June 30, 2017.

114. Option (1) is correct.
From the given options, Sulphur dioxide acts as a temporary bleaching agent and removes oxygen by reduction as mentioned in the above reaction. The most common bleaching agents generally fall into two categories: chlorine and its related compounds (Sodium Hypochlorite) and the peroxygen bleaching agents, such as hydrogen peroxide and sodium perborate. Sulphur dioxide gas, too, acts as a bleaching agent in moist conditions.

115. Option (1) is correct.
The Open File Table stores the information about all the files that are open while the OS is running. All files must be 'opened' before they can be accessed and 'closed' when no longer required. This operation is the common operation performed on the file. Once the file is created, it must be opened before performing the file processing operations.

116. Option (4) is correct.
The aim of Antyodaya programme is reducing hunger among the poorest segments of the BPL population. Antyodaya Anna Yojana is the sponsored scheme of Government of India to provide highly subsidised food to millions of the poorest families. This scheme was developed by the then Union Food and Civil Supplies ministry, Government of India on 25th December 2000 and first implemented in the Indian state of Rajasthan.

117. Option (4) is correct.
Rajasthan launched Annapurna Rasoi Scheme in 2016 to provide quality food at affordable prices to the poor and needy one. The state government launched this scheme with the aim 'no one should sleep hungry' from 20th August 2016 through 358 kitchens in all 213 urban bodies of the state.

118. Option (3) is correct.
A commercial bank is a financial institution that provides services like loans; certificates of deposits, savings bank accounts bank overdrafts, etc. The priority sector lending by commercial banks in India is to agriculture, small - scale industries and the weaker sector of the population. Priority Sector means those sectors which the Government of India

and Reserve Bank of India consider as important for the development of the basic needs of an economy.

119. Option (3) is correct.

Minamata disease was a kind of organic mercury poisoning induced by the intake of polluted fish and shellfish caught in Minamata Bay. It is caused by eating large quantities of fish and shellfish polluted by methyl mercury in factory wastewater.

120. Option (4) is correct.

Gambusia is a large genus of viviparous fish in the family Poeciliidae. Gambusia fish is released into ponds and wells to controlling the mosquitoes by eating mosquito larvae insects and crustaceans. These are often referred to as plague minnows due to their explosive spreading, higher reproduction rate.

121. Option (4) is correct.

Sun Yat Sen was the leader of KMT Party of China. Sun Yat-sen was China's first president and remains China's most international leader as comfortable in the West as in his homeland. He was a world-renowned revolutionary who devoted his entire life to overthrowing the Qing Dynasty and setting up the Republic of China.

122. Option (1) is correct.

A biome is a bio geographical unit of various plants and animals that inhabit a particular type of geographic region of Earth. Biome is a broader term than habitat and can comprise a variety of habitats. Temperature range, soil type, and the amount of light and water are unique to a particular place and form the niches for specific species allowing scientists to define the biome.

123. Option (3) is correct.

The retina is at the back of human eye. It's opposite the lens and pupil. The lens focuses light that enters your eye to hit your retina and its photoreceptor cells. The cells in the retina absorb and convert the light to electrochemical impulses which are transferred along the optic nerve and then to the brain.

124. Option (4) is correct.

Purchase or sale of financial assets like shares is not included while calculating national income while commission income of a share broker should be included in National income as it is a payment for productive service rendered. Income of a Joker and a commercial artist will be included in the national income as it is a part of capital formation and leads to production of goods and services in the economy.

125. Option (1) is correct.

Kerala is home to a variety of spices: pepper, vanilla, cardamom, clove, cinnamon, nutmeg, ginger and turmeric. Kerala is known as garden of spice for its nature and beautiful environment. It has been known around the world for its spices for thousands of years and is considered as the spice garden of India. It has so many state-wide spice gardens.

126. Option (1) is correct.

A chaitya is a Buddhist shrine or prayer hall with a stupa at one end that was made for large gathering of devotees. Chaitya is a Buddhist shrine including a stupa. It is derived from the Sanskrit word chita. Chaitya and vihara was the main aspects of maintaining the monastic nature of Buddhism and Jainism.

127. Option (4) is correct.

A semiconductor is a substance that has specific electrical properties that enable it to serve as a foundation for computers and other electronic devices. Silicon is a semiconductor. Common semiconductor compounds include gallium arsenide, indium antimonide and the oxides of most metals. The semiconductor is a material that has electrical conductivity between the conductor and the insulator.

128. Option (1) is correct.

Milkiness observed on passing carbon dioxide through lime water is due to the formation of calcium carbonate.

$$Ca(OH)_2 + CO_2 \rightarrow CaCO_3 + H_2O$$
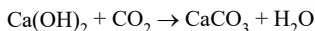
When carbon dioxide is passed through lime water it reacts with calcium hydroxide solution and produces the white precipitate of calcium carbonate and water.

129. Option (4) is correct.

The price elasticity of demand measures the sensitivity of the quantity demanded to changes in the price. The elasticity of demand for luxury goods is more than one. When a good or service is a luxury or a comfort good, the demand is highly price-elastic when compared to a necessary good. Luxury goods have high income elasticity of demand: as people become wealthier, they will buy proportionately more luxury goods.

130. Option (1) is correct.

A debugger is a special program used to find errors (bugs) in other programs. The system program which has been designed to help a programmer in finding as well as correcting errors/bugs in a program is called a debugging tool. To prevent incorrect operation of a software or system, debugging is used to find and resolve bugs or defects.

131. Option (3) is correct.

The Tropic of Cancer is the circle of latitude located approximately 23.5 degrees north of the equator. It passes through Asia, including countries like India, Mexico, Saudi Arabia, and others.

The Tropic of Capricorn is the circle of latitude located approximately 23.5 degrees south of the equator. It passes through South America, including countries like Brazil and Paraguay, as well as Africa, including parts of Namibia and Botswana.

Therefore, both the Tropic of Cancer and the Tropic of Capricorn pass through Africa.

132. Option (4) is correct.

The Golden Temple, also known as Harmandir Sahib, is a Sikh temple located in Amritsar, Punjab, India. It was built by the fifth Sikh Guru, Guru Arjun Dev. The construction of the Golden Temple was initiated by Guru Arjun Dev and was completed in 1604. It is considered one of the holiest shrines in Sikhism.

133. Option (1) is correct.

Antonio Guterres a former Prime Minister of Portugal, assumed the position of Secretary-General of the United Nations on January 1, 2017.

134. Option (4) is correct.

Rainbows are formed due to the refraction, dispersion, and reflection of sunlight in raindrops. The sunlight enters the raindrop, undergoes dispersion (separation into its component colors), reflects off the inside surface of the raindrop, and exits the drop.

The observer sees the rainbow in the direction opposite to the sun, with their back to the sun.

135. Option (3) is correct.

According to the Constitution of India, the Prime Minister, based on their political judgment and considerations, has the significant responsibility of determining the size and membership of the Council of Ministers. This decision is then formally approved by the President.

136. Option (3) is correct.

Varun Singh Bhati is associated with the sport of High Jump. He won the bronze medal in the Men's High Jump T-42 category at the 2016 Rio Paralympics. The T-42 category is for athletes with lower limb deficiencies or amputations.

137. Option (4) is correct.

The maximum number of Mongol invasions took place during the reign of Alauddin Khilji, who was the second ruler of the Khilji dynasty in the Delhi Sultanate. Alauddin Khilji successfully rebelled several Mongol invasions during his rule from 1296 to 1316. His military achievements and strategic measures contributed to the defense of the Delhi Sultanate against the Mongol threat.

138. Option (2) is correct.

Microsoft Excel is an electronic spreadsheet program. It is a part of the Microsoft Office package and is widely used for creating, editing, and managing spreadsheets. Excel allows users to perform various tasks such as calculations, data analysis, and visualization using a grid of cells arranged in rows and columns.

139. Option (3) is correct.

In the Panchayat Raj System in India, the Panchayat Samiti (also known as Block Panchayat) is constituted at the Block level. The hierarchy typically includes Gram Panchayats at the village level, Panchayat Samiti at the block level, and Zila Parishad at the district level. The Panchayat Samiti is responsible for coordinating the functioning of the Gram Panchayats within its jurisdiction.

140. Option (3) is correct.

Participation is a fundamental element of a democratic system. In a democratic system, citizens have the right to participate in decision-making processes, express their opinions, and contribute to the governance of the country. Democratic systems encourage active involvement of the people in various aspects of governance, such as voting, participating in public debates, and engaging in civic activities.

141. Option (1) is correct.

Narasimhavarman also known as Rajasimha, initiated the construction of the temple around 700 CE. He is credited with building the core structure and laying the foundation for its unique Dravidian architectural style.

142. Option (1) is correct.

Chromium is a trace element found in the body, it is not present in blood. It aids in insulin function and carbohydrate metabolism, but its primary location is in tissues and organs, not the bloodstream.

143. Option (2) is correct.

Govind Ballabh Pant Sagar reservoir, also known as Rihand Dam, is situated in the Sonbhadra district of Uttar Pradesh, India. While it does border the state of Madhya Pradesh, its primary location lies within Uttar Pradesh.

144. Option (2) is correct.

Herbivorous animals typically lack canines in their dental structure. Canines are pointed teeth that are often associated with carnivores and omnivores for tearing and ripping meat. In herbivores, the dental structure is adapted for grinding and processing plant material.

145. Option (3) is correct.

In economic terms, rent is considered a non-contractual earning. Rent is the payment made for the use of land or any other natural resource. It is distinct from contractual earnings like wages (payment for labor), interest (payment for the use of capital), and profit (which is the residual income after deducting costs from revenue).

146. Option (4) is correct.

Methane is the primary gas released from a bio-gas plant and is used as a fuel gas. Bio-gas is a mixture of gases produced by the anaerobic digestion or fermentation of organic matter, typically composed of methane (CH_4) and carbon dioxide (CO_2). Methane is the major component and is flammable, making it a valuable source of renewable energy.

147. Option (4) is correct.

The title 'Gangai Kondan' was adopted by Rajendra I, who was one of the prominent Chola kings. Rajendra I succeeded his father Rajaraja I and expanded the Chola Empire to great extents, including successful military campaigns in various regions. The title 'Gangai Kondan' translates to 'Conqueror of the Ganges', reflecting the Chola conquests under his reign.

148. Option (2) is correct.

The correct unit for Volt x Second/Coulomb is Resistance (Ω).

149. Option (2) is correct.

Cockroaches and many insects have Malpighian tubules as their excretory organs. These tubules are responsible for removing metabolic wastes and excess ions from the hemolymph (insect blood) and depositing them into the hindgut.

150. Option (3) is correct.

In a Futsal team, there are five players on the field at any given time, including the goalkeeper.